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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,104

04/25/2006

Herbert Friedrich Boerner

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

GREEN, TRACIE Y

ART UNIT

PAPER NUMBER

2879

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,104	Applicant(s) BOERNER ET AL.	
	Examiner TRACIE Y. GREEN	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/25/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 and 5-7 are rejected under 35 U.S.C. 102 (e) as being anticipated by Wu et al. (US 2005/0040392 A1).

Regarding claim 1, Wu et al. teaches (Figure 6A) light-emitting device(2), comprising at least a substrate (Paragraph 53, lines 1-5), an anode (10), a first hole transport layer (611), a light-emitting layer (615) and a cathode (614, wherein a first hole blocking layer (617) is arranged between the first hole transport layer (611) and the light-emitting layer (619).

Regarding claim 2, Wu et al. teaches characterized in that a second hole blocking layer (613) is arranged between the cathode (14) and the light-emitting layer (611).

Regarding claim 5, Wu et al. teaches characterized in that the oxidation potential of the material of a hole blocking layer (135) is higher than the oxidation potential of an adjoining hole transport layer (131, TATE). *(Examiner note the material disclosed by prior art is BCP which is a material that the applicant also uses as well as the TATE, as such examiner takes the position that this requirement is therefore satisfied)*

Regarding claim 6, Wu et al. teaches (Figure 17) characterized in that the material of a hole blocking layer (4, 7, 9, 11) is selected from the group consisting of 2,9-dimethyl-4,7-diphenyl-1,10-phenanthroline (Bathocuproin, BCP), 3-(4-biphenyl)-4-phenyl-5-tert-butylphenyl-1,2,4-triazole (TAZ), 2-(4-biphenyl)-5-(p-tert-butylphenyl)-1,3,4-oxadiazole (tBu-PBD), 2-(4-biphenyl)-5-(4-tert-butylphenyl)-1,2,4-oxadiazole (PBD), 1,3,5-tris-(1-phenyl-1H-benzimidazol-2-yl)benzene (TBPI) and oligophenyls with perfluorinated side chains (1215, BCP).

Regarding claim 7, Wu et al. teaches (Figure 6a) characterized in that an electron transport layer (619) is arranged between cathode (14) and light-emitting layer (615).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (US 2005/0040392 A1).

Regarding claim 3, Wu et al. teaches (Figure 6a-d) teaches various embodiments of HBL and HTL layers that have been within the scope of applicants invention, see rejections claims 1 -2. Wu does not disclose a layer structure consisting of at least one further hole blocking layer and one further hole transport layer is arranged between the first hole transport layer and the anode. However, examiner notes that the additional HBL layers between the anode and the HTL is not shown to solve any stated problem or yield any unexpected results that is not within the scope of the teachings applied. Additionally, the examiner notes that the device taught by the teachings of the applied art performs same functions in essentially the same manner as the claimed device. Accordingly, these different variances (i.e. one two or three HBL layers between one two or three HTL layers) are considered to be obvious design alternative.

Regarding claim 4, Wu et al. teaches (Figure 6c) that the further hole blocking layers (633,637) and hole transport layers (631,635) are arranged in an alternating manner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRACIE Y. GREEN whose telephone number is (571)270-3104. The examiner can normally be reached on Monday-Thursday, 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571/272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tracie Y Green/
Examiner, Art Unit 2879

/Sikha Roy/
Primary Examiner, Art Unit 2879